What is claimed is:

1. A stack gate electrode of a semiconductor device, comprising:

a silicon layer;

a reaction prevention layer formed on the silicon layer, wherein the reaction prevention layer containing nitrogen and silicon and has a surface density of nitrogen above about $1 \times 10^{15}/cm^2$; and

a metal layer formed on the reaction prevention layer.

2. The stack gate electrode as recited in claim 1, wherein the reaction prevention layer has a thickness greater than about 1.2 nm but less than about 3 nm.

3. The stack gate electrode as recited in claim 1, wherein the metal layer includes:

a first layer containing refractory metal and nitrogen; and

a second layer made of the refractory metal used in the first layer.

4. The stack gate electrode as recited in claim 3, wherein the refractory metal is any one selected from a group consisting of W, Mo, Ta, Ti, Ni and Co.

5. The stack gate electrode as recited in claim 1,

wherein the reaction prevention layer is a silicon nitride layer obtained by nitridating a surface of the silicon layer.

6. A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor layer including at least a gate insulation layer;

forming a silicon layer on the gate insulation layer;

forming a reaction prevention layer on the silicon layer, the reaction prevention layer containing nitrogen and silicon and having a surface density of nitrogen above about $1 \times 10^{15}/cm^2$;

forming a metal layer on the reaction prevention layer;

forming a stack gate electrode by etching sequentially the metal layer, the reaction prevention layer and the silicon layer; and

performing a selective oxidation process oxidizing selectively the silicon layer from the stack gate electrode.

7. The method as recited in claim 6, wherein at the step of forming the reaction prevention layer, the silicon layer is formed by performing a decoupled plasma nitridation technique or a remote plasma nitridation technique in an atmosphere of a gas selected from a group consisting of NH_3, ND, where D is deuterium, N_2 and NF_3 or a mixed gas of the above as simultaneously as by maintaining a substrate temperature in a range from about 0 °C to about 700 °C and

supplying a RF power of about 1000 W.

8. The method as recited in claim 6, wherein at the step of forming the reaction prevention layer, a surface of the silicon layer is proceeded with a thermal treatment performed at a temperature ranging from about 750 °C to about 950 °C for about 10 seconds to about 100 seconds in an atmosphere of NH_3 or ND_3.

9. The method as recited in claim 6, wherein the reaction prevention layer is a silicon nitride layer formed through the use of a chemical vapor deposition technique or an atomic layer deposition technique.

10. The method as recited in claim 6, wherein the reaction prevention layer is formed with a thickness thicker than about 1.2 nm but thinner than about 3 nm.